



**NAVAL SAFETY CENTER**

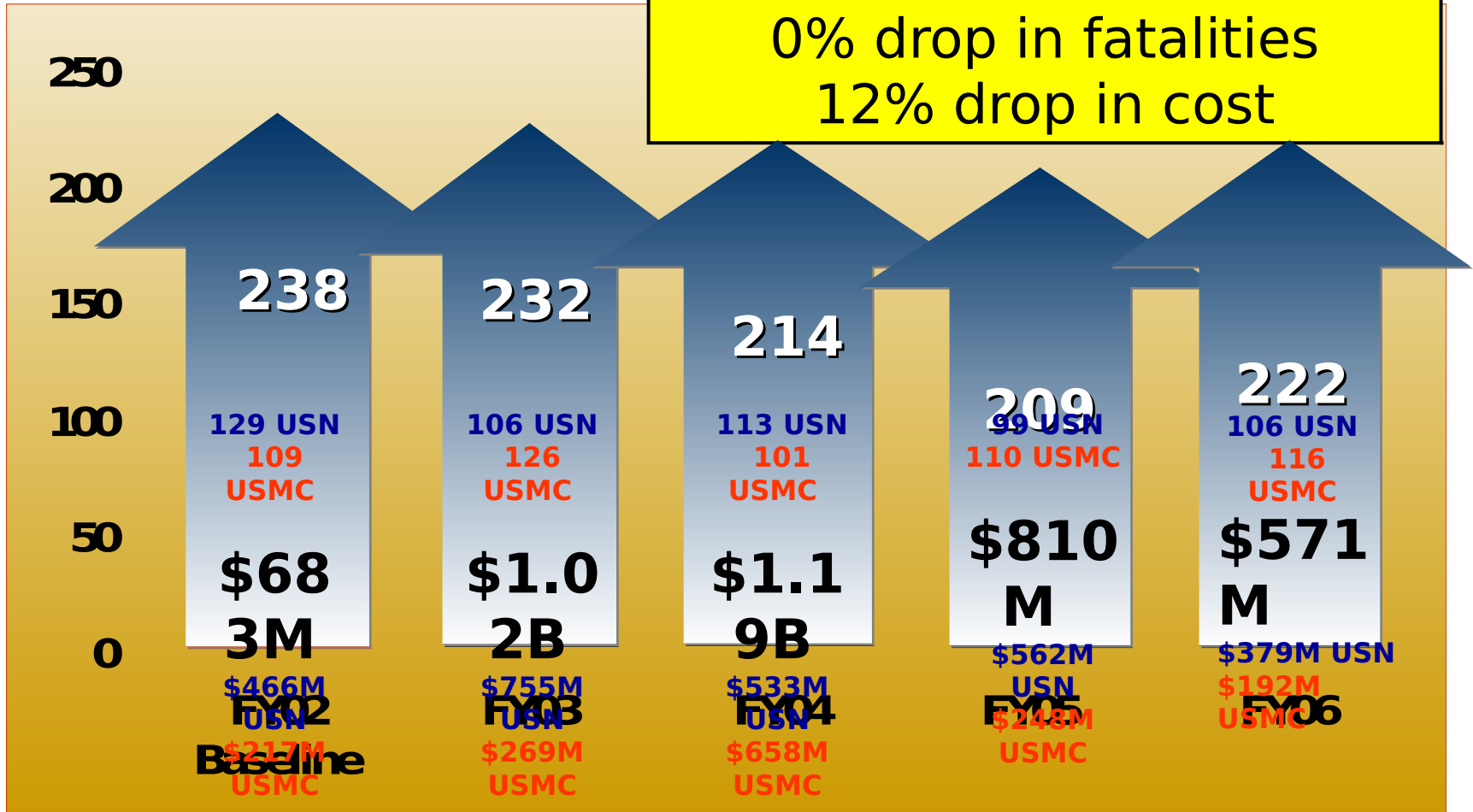


# USN/USMC Fatalities & Resources Lost

During Mishap

From FY02 to FY06 to date:  
0% drop in fatalities  
12% drop in cost

NUMBER OF FATALITIES



ENDSTATE GOAL IS ZERO!

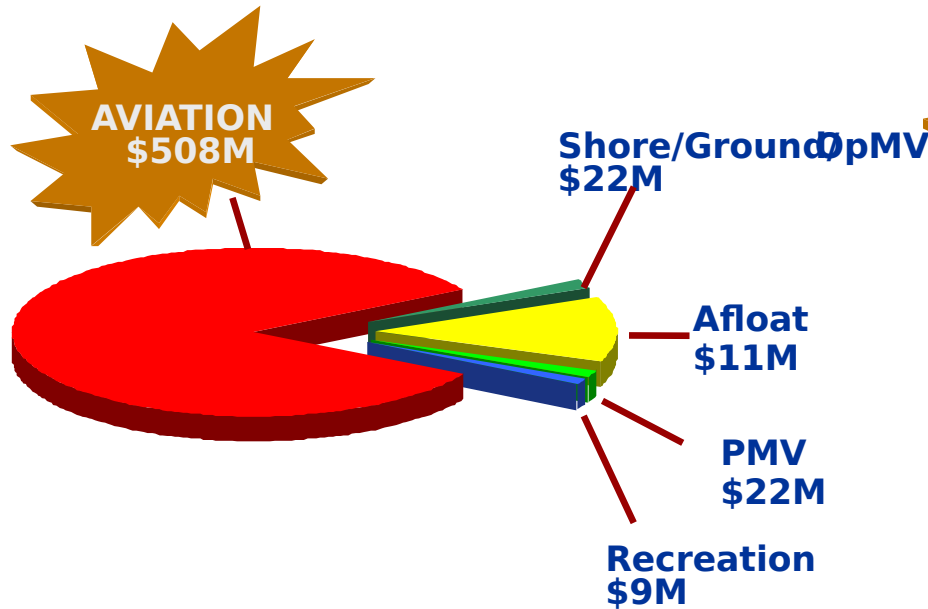
NSC Data: 31 Aug 06



# FY06 Total Cost and Deaths

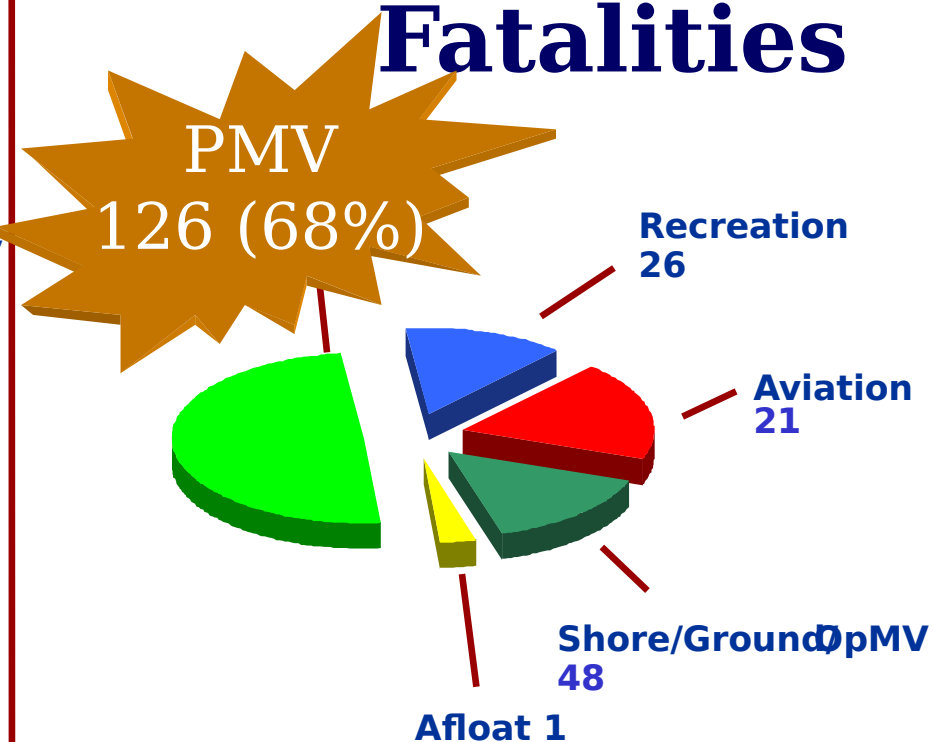
## Navy and Marine Corps

### Cost



**Total Cost: \$571M**

### Fatalities



**Total Fatalities: 222**



# SECRETARY RUMSFELD'S CHALLENGE



THE SECRETARY OF DEFENSE  
1000 DEFENSE PENTAGON  
WASHINGTON, DC 20301-1000

JUN 22 2006

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS  
CHAIRMAN OF THE JOINT CHIEFS OF STAFF  
COMMANDERS OF THE COMBATANT COMMANDS  
SERVICE CHIEFS

SUBJECT: Reducing Preventable Accidents

I have set some very specific mishap reduction goals for the Department to achieve. My congratulations to those who are progressing toward their respective goals, but others are not. We must rededicate ourselves to those goals – and achieve them.

Too often we excuse mishaps by citing the difficult circumstances in which we operate. We have trained our men and women to operate safely in very trying conditions. There is no excuse for losing lives given proper planning, attention to detail, and the active involvement of the chain of command.

Accountability is essential to effective leadership. I expect all the Department's leaders, from the Commander to the first line supervisors, to be accountable for mishaps under their watch. We simply will not accept status quo.

If we need to change our training, improve our material acquisition, or alter our business practices to save the precious lives of our men and women, we will do it. We will fund as a first priority those technologies and devices that will save lives and equipment. We will retrofit existing systems, and consider these devices as a "must fund" priority for all new systems. We can no longer consider safety as "nice-to-have."

I want to hear what you are doing to improve your safety performance and I want to see the results of your actions.



**There is no  
excuse for  
losing  
lives... I  
want to see  
the results  
of your**

**Memorandum from Secretary of Defense, 22  
June 2006**

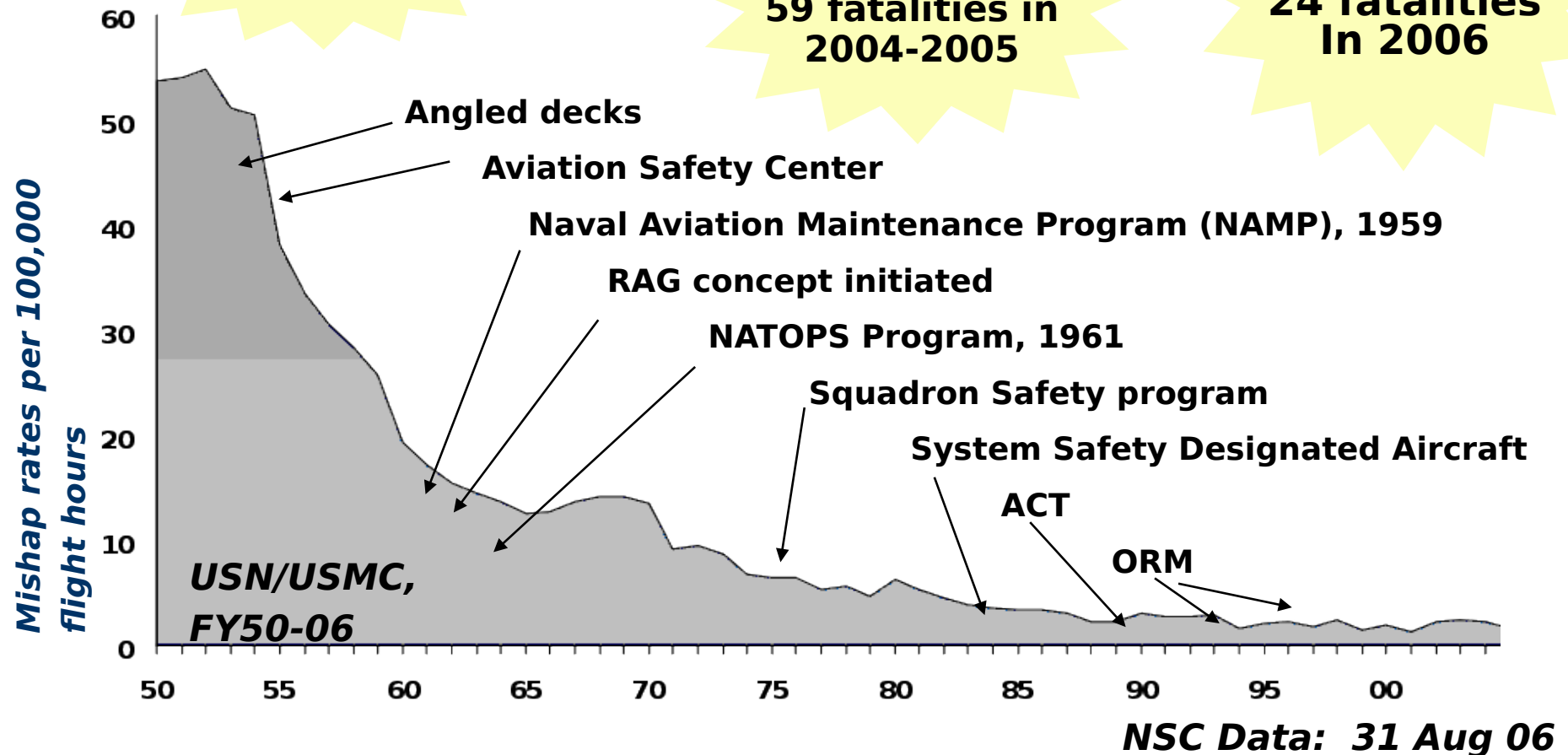


# NAVAL AVIATION HISTORY

**776 aircraft  
destroyed in  
1954**

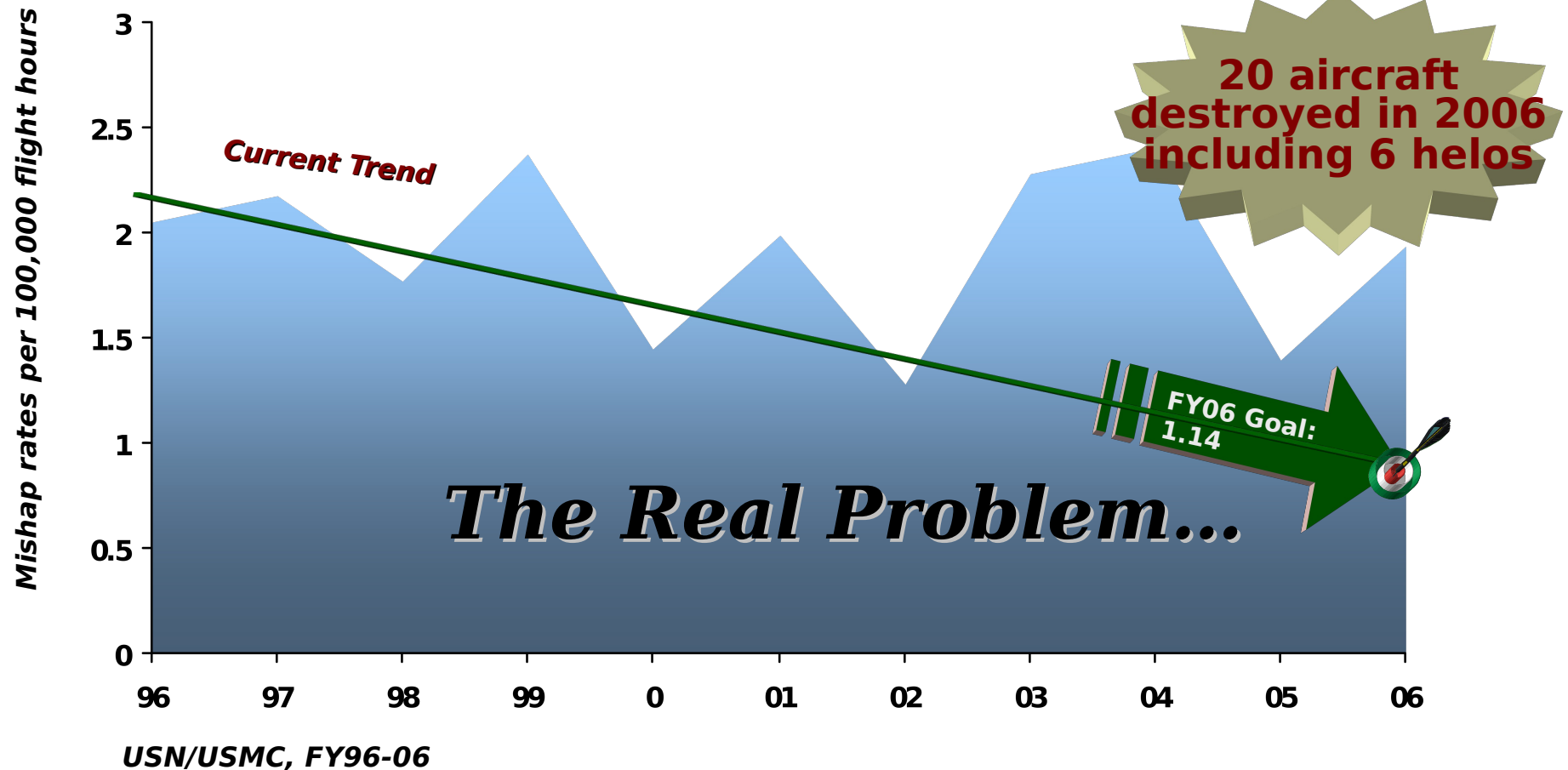
**45 aircraft  
destroyed and  
59 fatalities in  
2004-2005**

**20 aircraft  
destroyed and  
24 fatalities  
In 2006**





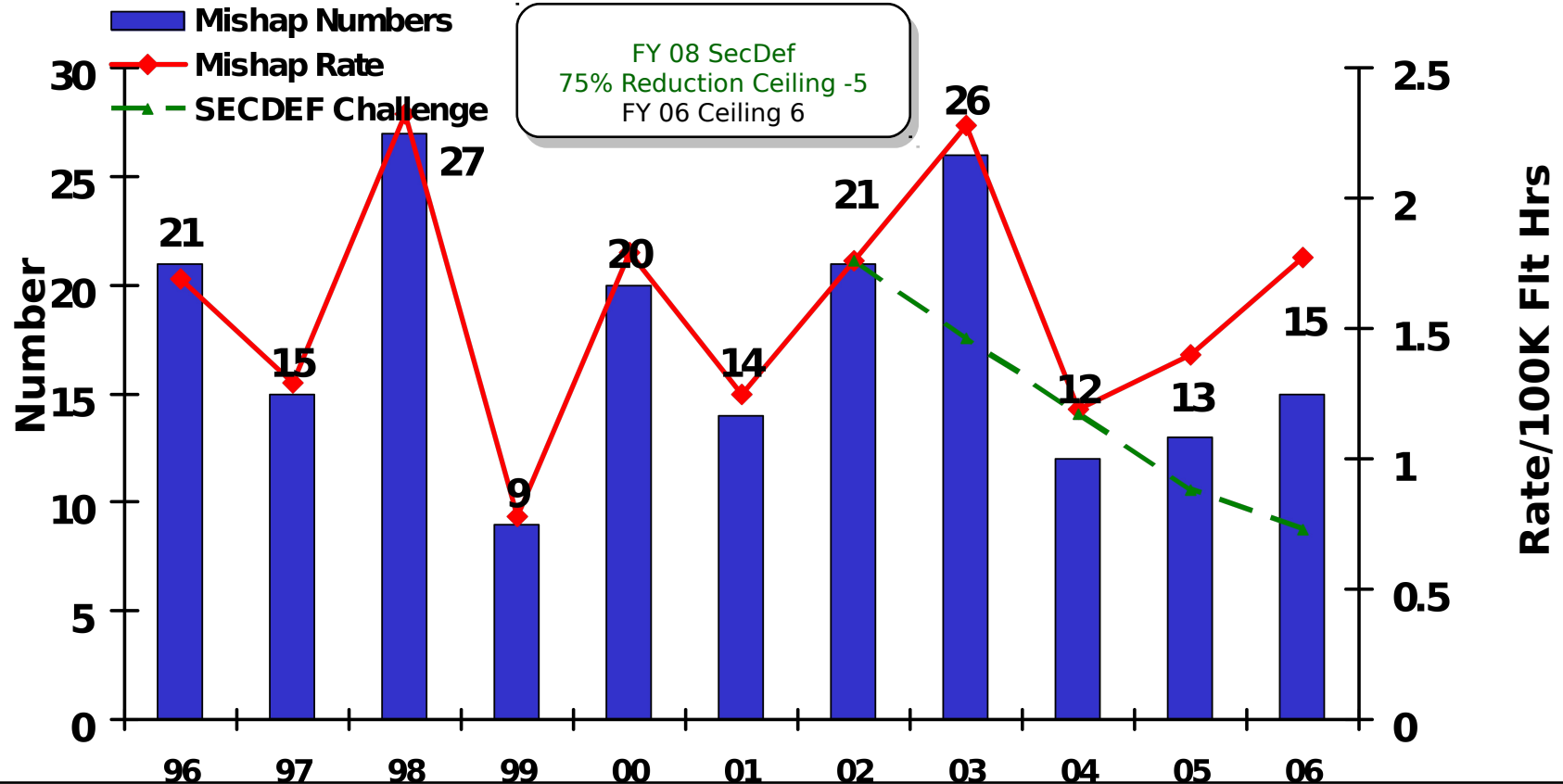
# Naval Aviation Mishap Trend



**NSC Data: 31 Aug 06**



# CLASS A FLIGHT MISHAPS



Aug 05

**CLASS A FM/FM RATE FY COMPARISON: 15 / 1.77**

**11 / 1.30**

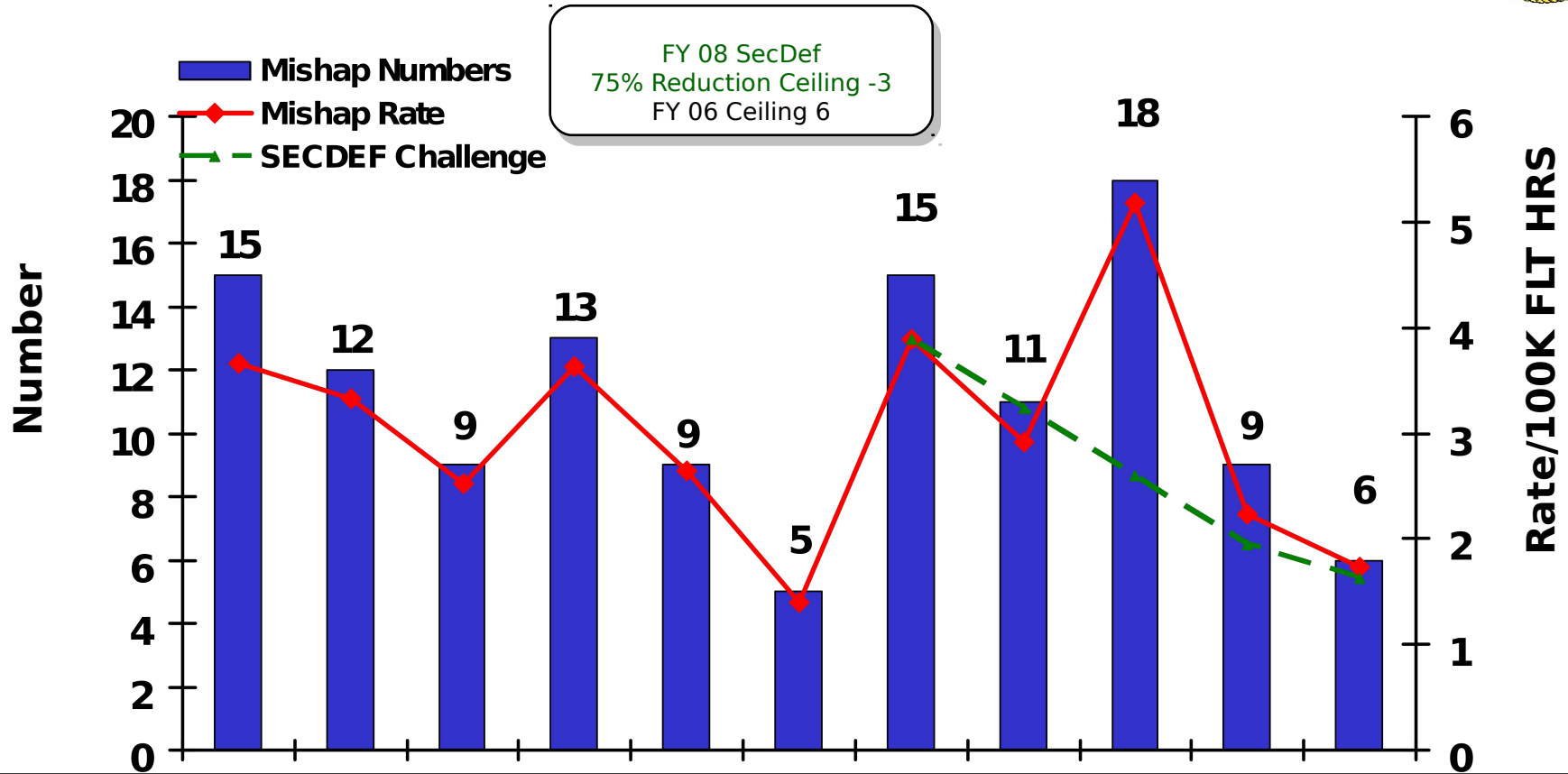
**FY05 MISHAPS/MISHAP RATE: 13 / 1.40**

**10-YEAR AVERAGE (FY96-05) MISHAPS/MISHAP RATE: 17.8 / 1.59**

31 Aug 06 31



# CLASS A FLIGHT MISHAPS



Aug 05

**CLASS A FM/FM RATE FY COMPARISON: 6 / 1.73**

**9 / 2.45**

**FY05 MISHAPS/MISHAP RATE: 9 / 2.24**

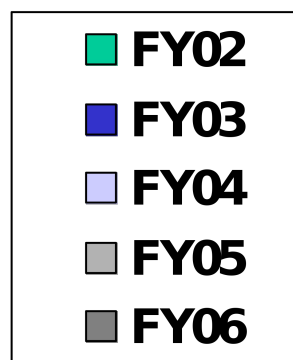
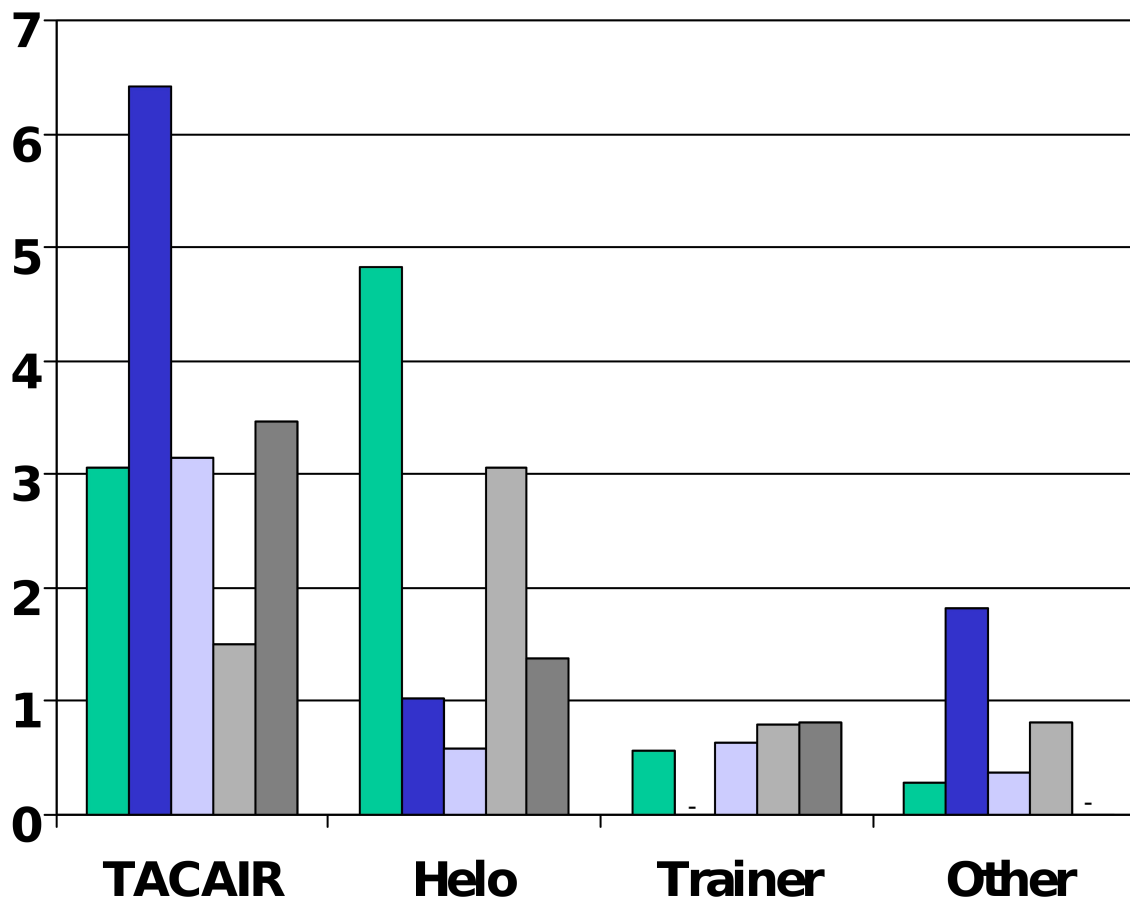
**10-YEAR AVERAGE (FY96-05) MISHAPS/MISHAP RATE: 11.6 / 3.14**





# CLASS A FLIGHT MISHAP RATE

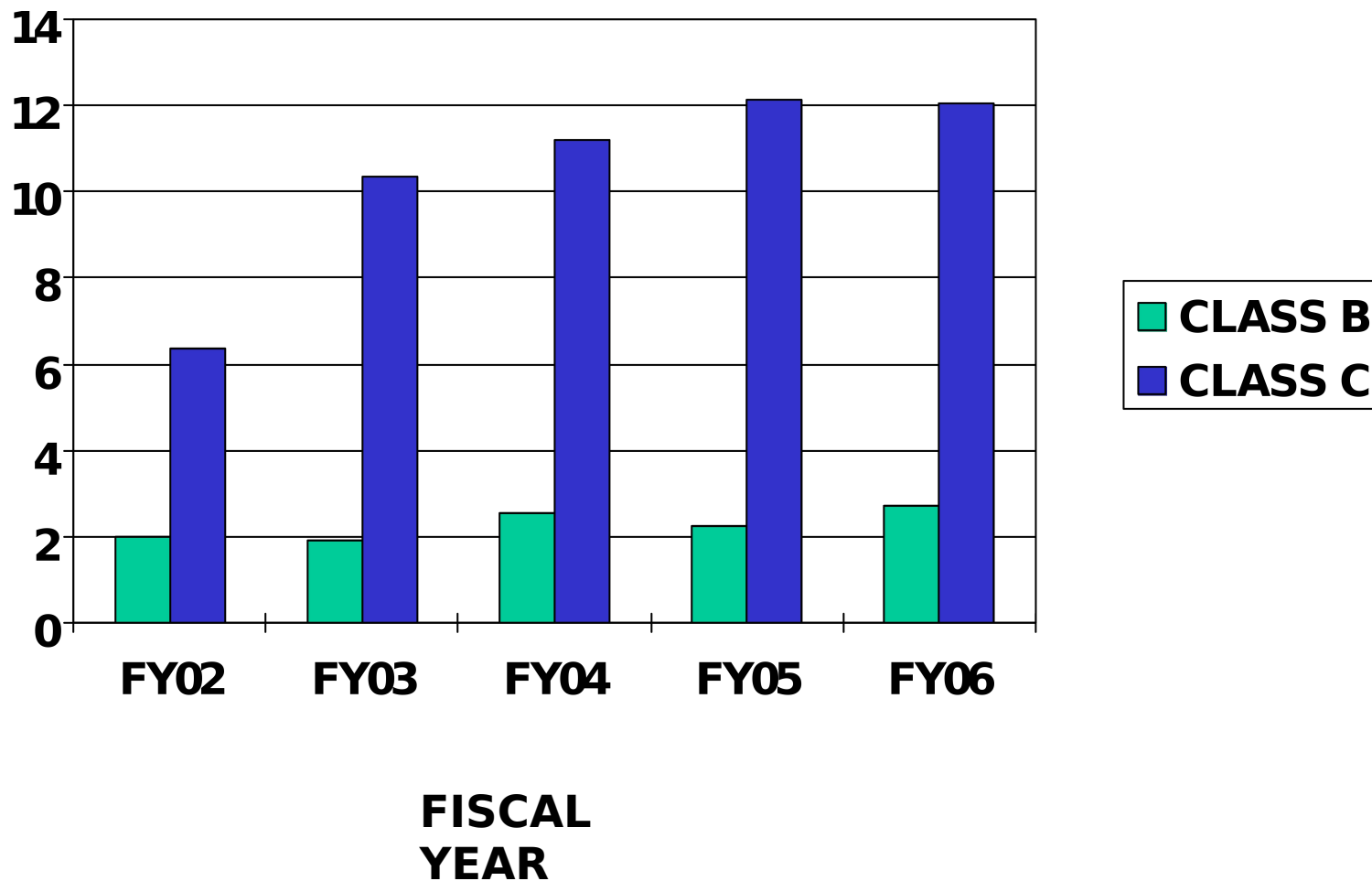
Rate per 100,000 flight hours





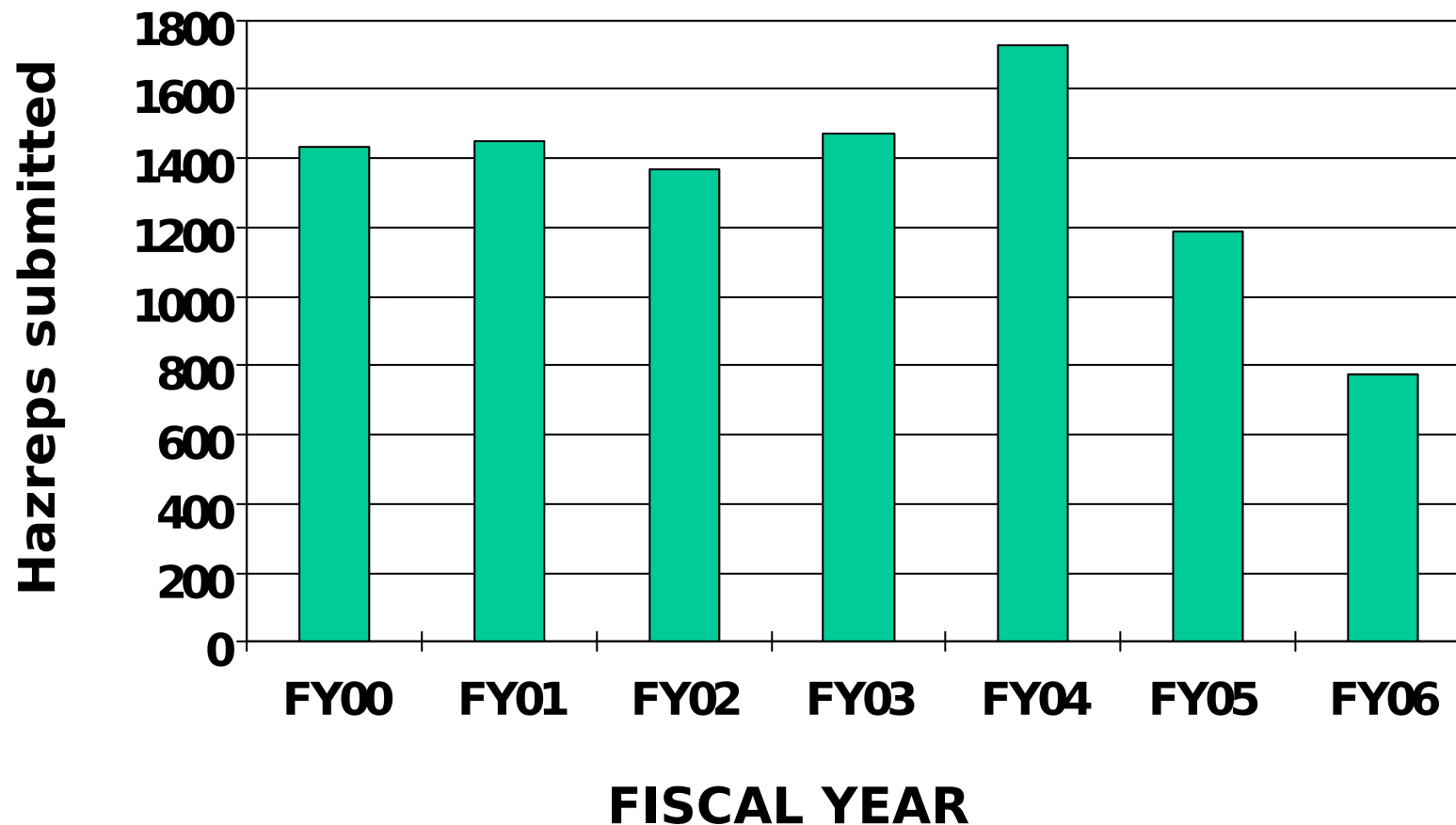
# AVIATION CLASS B/C MISHAP RATE

Rate per 100,000 flight hours





# AVIATION HAZARD REPORTS



01-28-06

23:14:28

C 76

29

149

05200

15



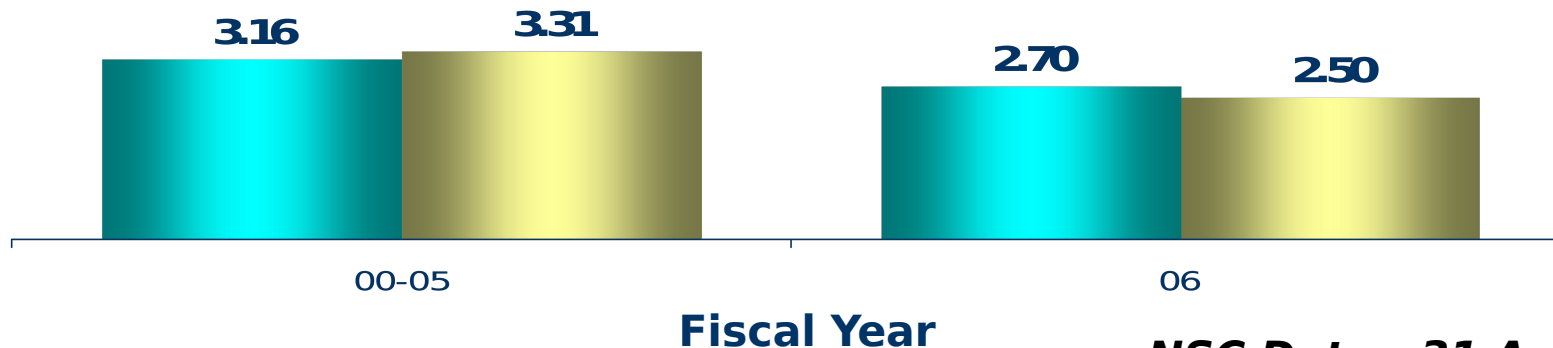
# FA-18 vs. TAILHOOK

## TOTAL NO. OF MISHAPS F-18 TAILHOOK

**FY00-05:**      **54**      **88**  
**FY06:**          **7**          **9**

Rate per 100,000 Flight  
Hours

■ F-18  
■ Tailhook



### This Year

**MAC:** 1 Class A

**CFIT:** 0 Class A

**OCF:** 0 Class A

**Mechanical Failures:** 4 (2 LEF, 1 rudder act, 1 hi-press turbine)

**PHYSEP:** 1

**Ramp Strike:** 1

*NSC Data: 31 Aug 06*



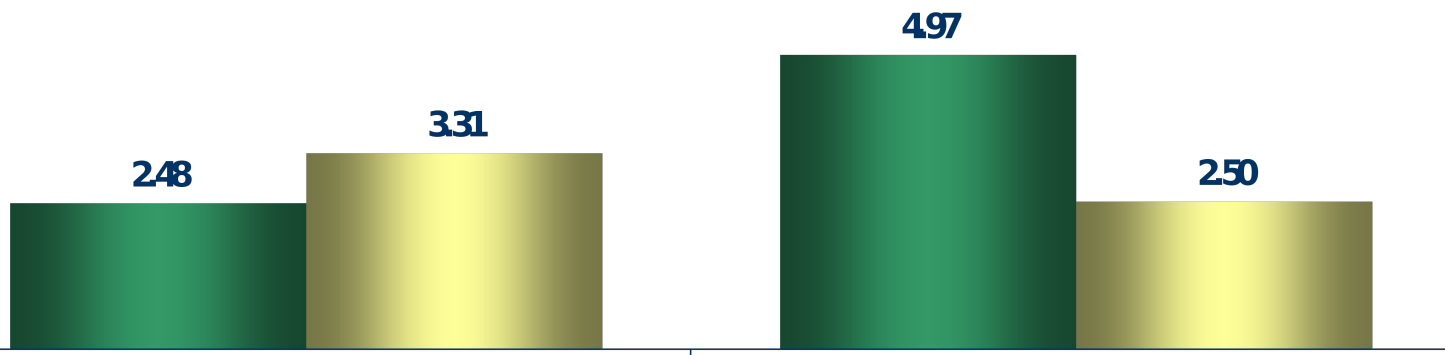
# EA-6B vs. TAILHOOK

## TOTAL NO. OF MISHAPS EA-6B TAILHOOK

**FY00-05: 6 88**  
**FY06: 2 9**

Rate per 100,000 Flight  
Hours

■ EA-6B  
■ Tailhook



00-05

Fiscal Year

06

NSC Data: 31 Aug 06

### This Year

**MAC:** 0 Class A

**CFIT:** 0 Class A

**OCF:** 0 Class A

**Mechanical Failure:** 1 Class A

**Landing:** 1 Class A – Ran off runway and gear collapsed



# E-2/C-2 vs. TAILHOOK

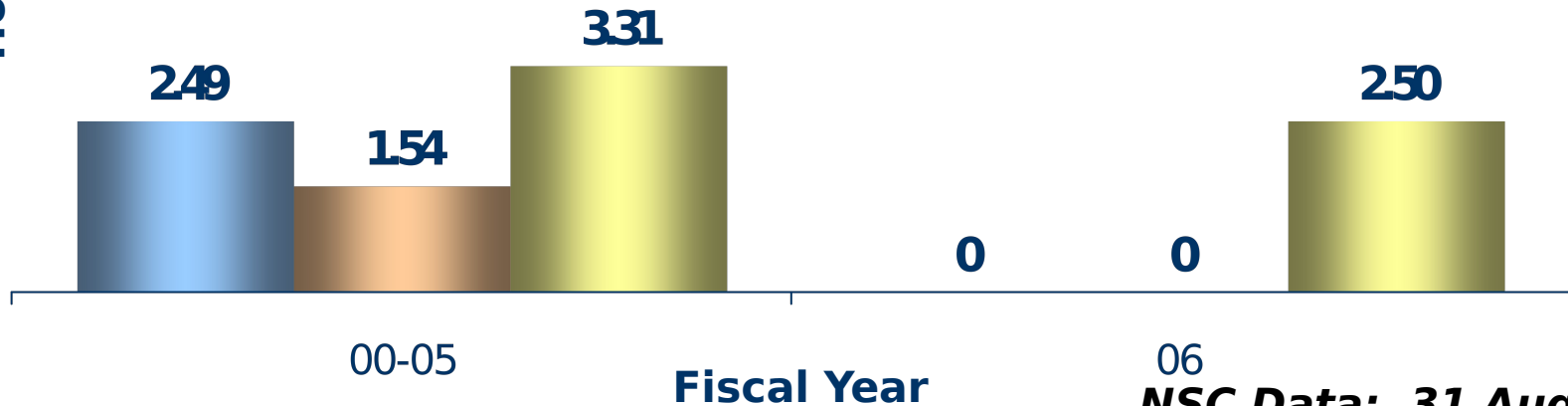
**TOTAL NO. OF  
MISHAPS**

	E-2	C-2	TAILHOOK
FY00-05:	4	1	88
FY06:	0	0	9



Rate per 100,000 Flight  
Hours

■ E-2  
■ C-2  
■ Tailhook



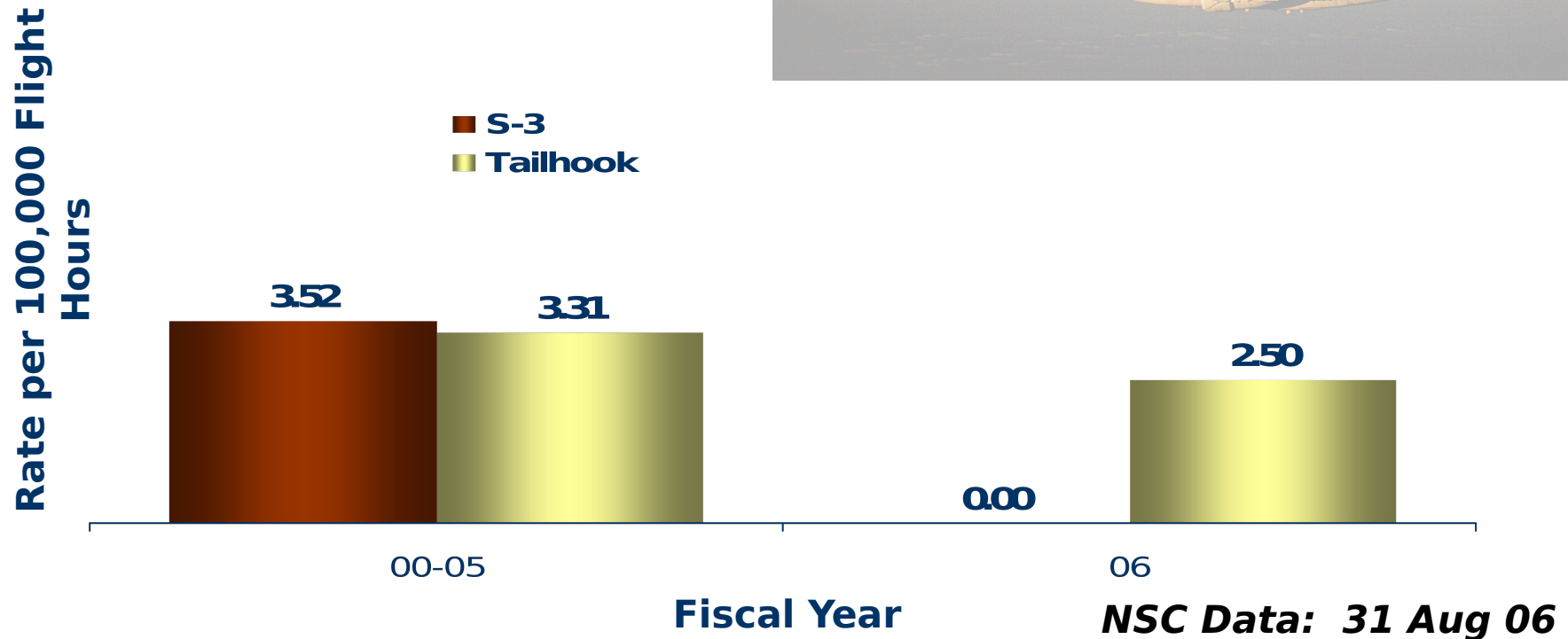
06  
**NSC Data: 31 Aug 06**



# S-3 vs. TAILHOOK

**TOTAL NO. OF  
MISHAPS**

	<b>S-3</b>	<b>TAILHOOK</b>
<b>FY00-05:</b>	<b>8</b>	<b>88</b>
<b>FY06:</b>	<b>0</b>	<b>9</b>







# Preliminary Causal Factors in FY06 Naval Aviation Class A Mishaps

## Naval Aviation Class A Flight Mishaps

Involved Factor	# Mishaps	Percent
<b>Aircrew Factor</b>	<b>14</b>	<b>67%</b>
Material Malfunction	5	24%
Maintenance Personnel	2	10%
<b>Supervisory Personnel</b>	<b>10</b>	<b>48%</b>
Facilities Personnel	1	5%
<b>Human Error</b>	<b>17</b>	<b>81%</b>
All Class A Mishaps (FY06)	21	100%

A mishap can have more than one Causal Factor. Human Error includes Aircrew, Maintenance Errors, & Supervisory Factors (which can be counted more than once in a mishap)



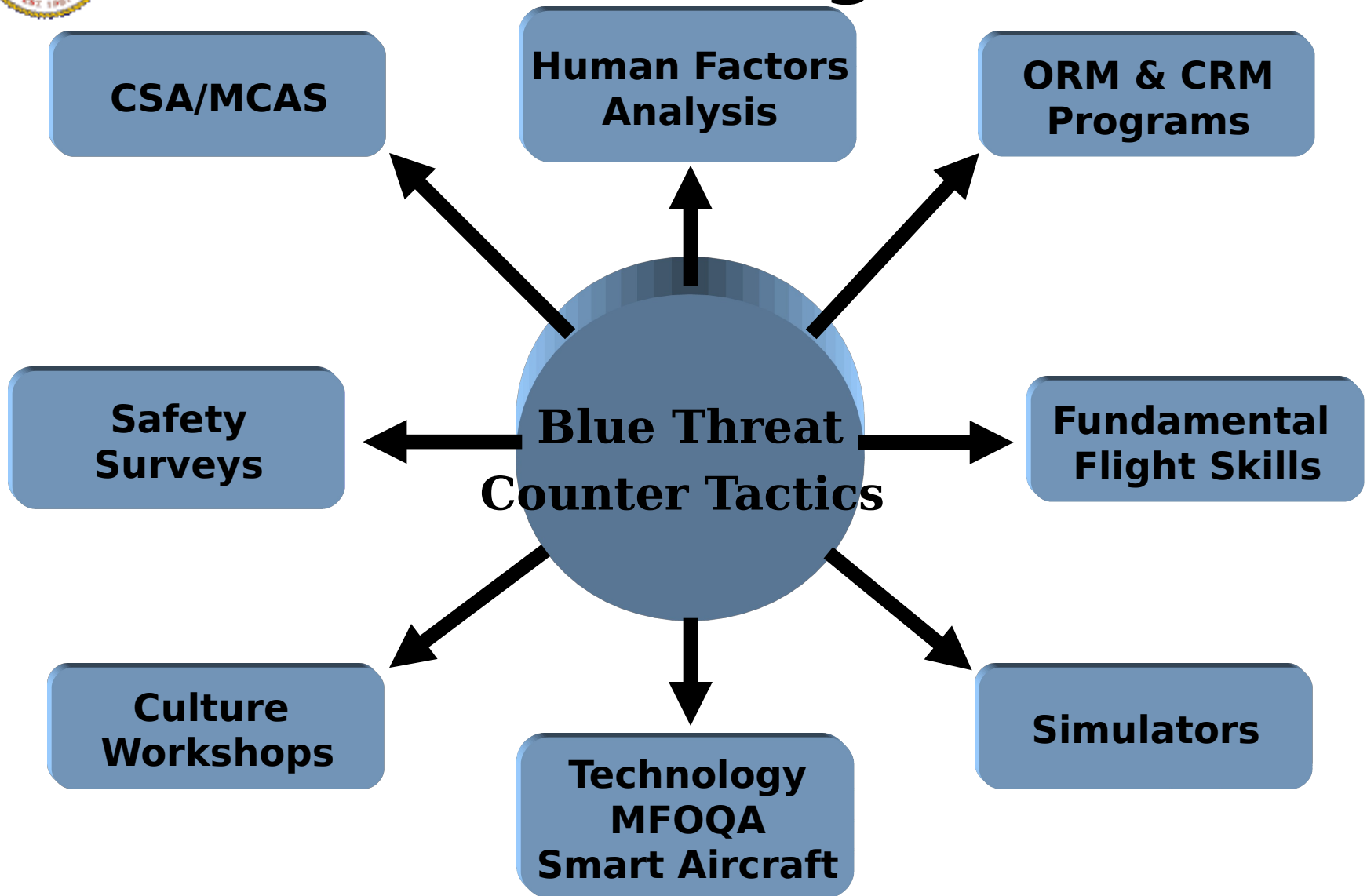
# TAILHOOK **RED** VS. **BLUE** THREAT (FY06)

- **RED THREAT:**
  - 0 fatalities
  - 0 aircraft
- VS.
- **BLUE THREAT:**
  - 2 fatalities
  - 8 aircraft destroyed





# Aviation Intervention Strategies





# **Survey Takeaways - FY 2006**

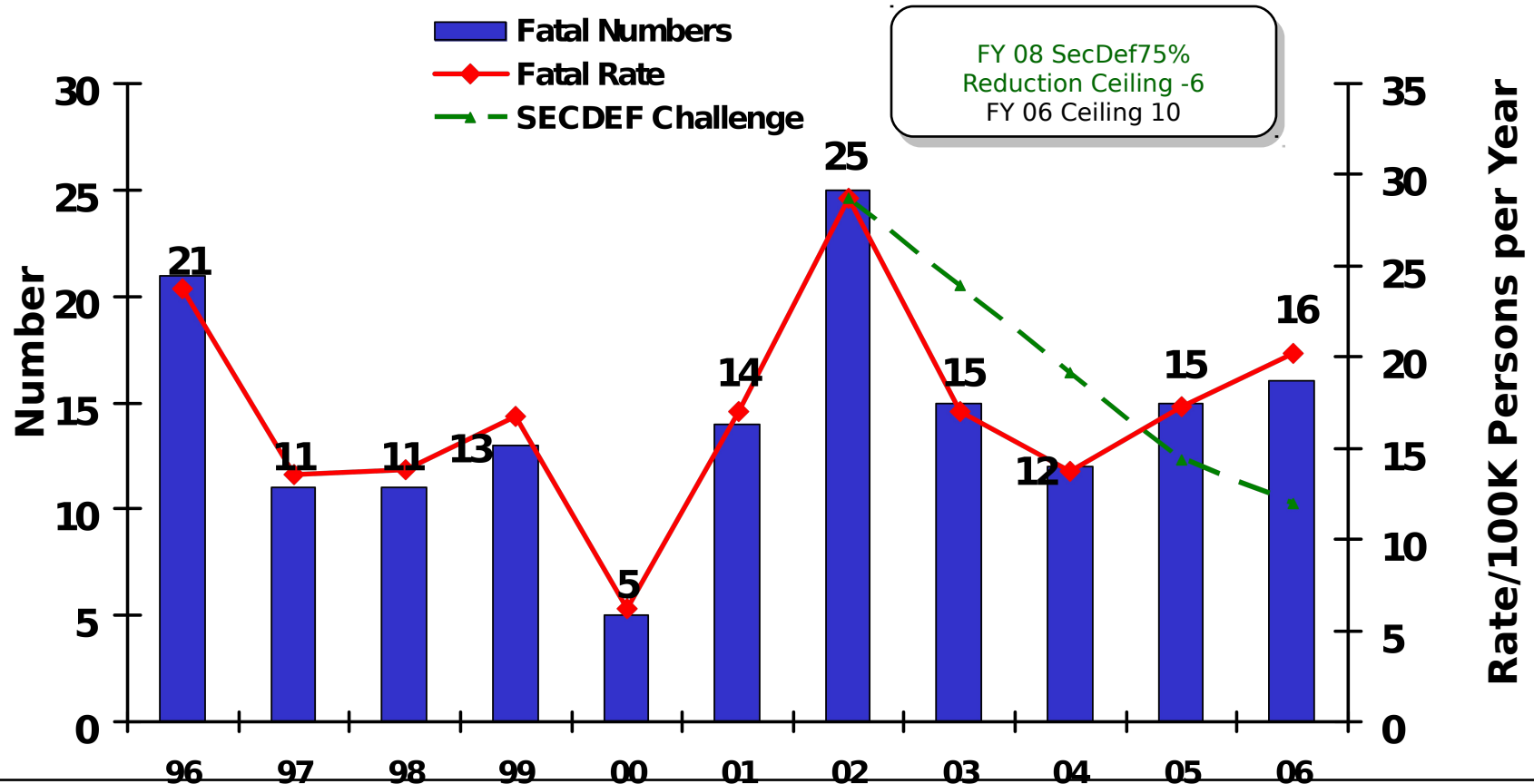
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**Safety Surveys on 80+ aviation commands revealed:**

- 1. ORM implementation**
- 2. Enlisted Safety Committees**
- 3. Hydraulic contamination control and monitoring**
- 4. Ready Service Lockers**
- 5. Ordnance certification program**
- 6. Multiple-Piece Tool accountability**
- 7. IMRL/Calibration program**
- 8. TD-1A/B Tie down chains are not being properly PMS'd.**



# CNAF PMV FATALITIES



Aug 05

**CLASS A FATALITIES/FATALITY RATE FY COMPARISON: 16 / 20.16 14 / 17.64**

**FY05 FATALITIES/FATALITY RATE: 15 / 17.32**

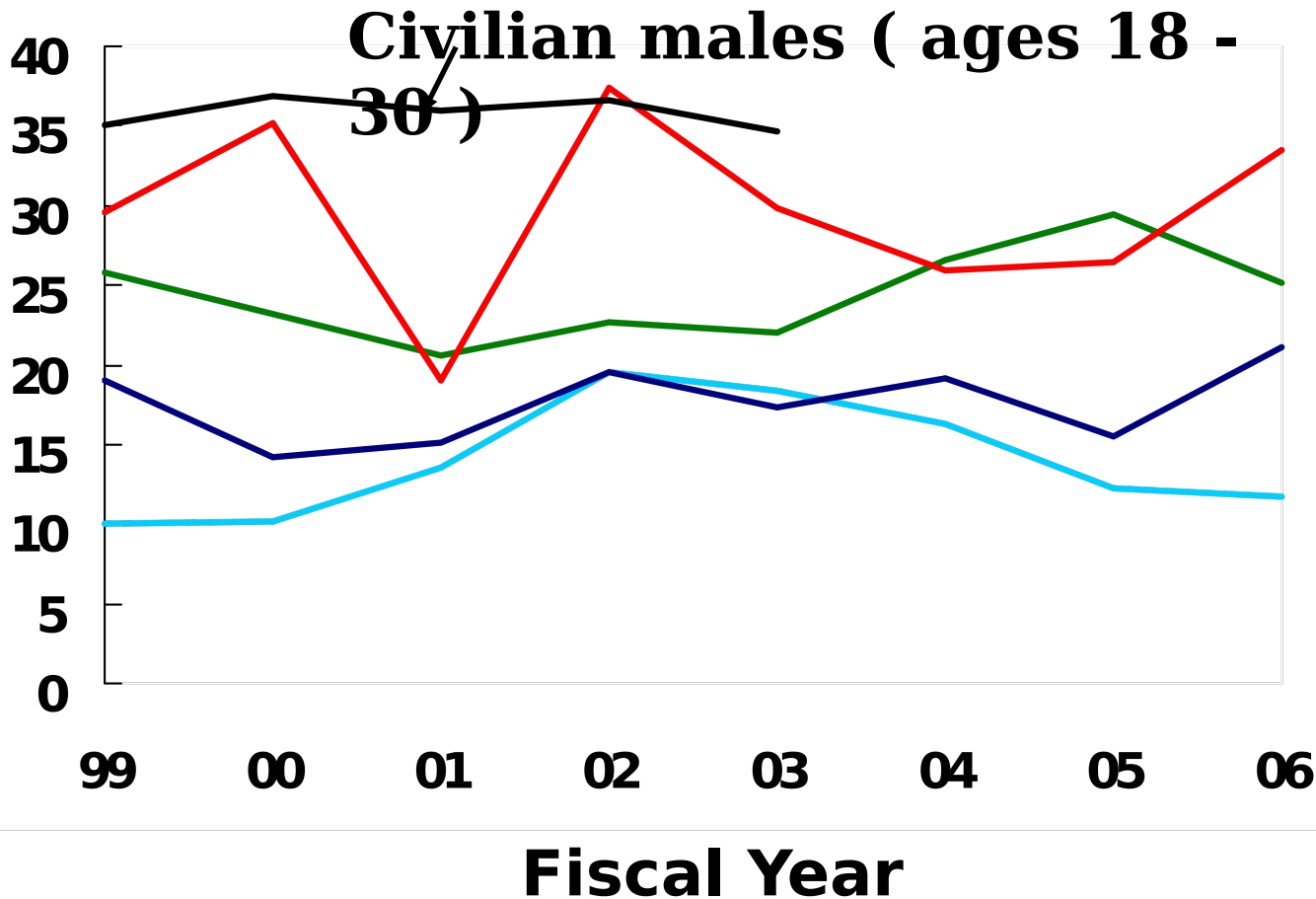
**10-YEAR AVERAGE (FY96-05) FATALITIES/FATALITY RATE: 14.2 / 16.93**

31 Aug 06

31



# PMV Deaths Rates



Four-service rates per 100,000 active duty military personnel per year

**33.43 (55)**  
**USMC (113)**  
**25.09**  
**Army**  
**21.10 (70)**  
**Navy**  
**11.75 (38)**  
**USAF**

Percentage of  
Force Under 26  
Years

USMC = 69%

Army = 48%

Navy = 45%

USAF = 39%

**NSC Data: 31 Aug 06**



# NSC Website: Your Valuable Resource

**[www.safetycenter.navy.mil](http://www.safetycenter.navy.mil)**



Work, Play, Live ... Safely!

## Naval Safety Center

[Site Map](#) | [Search](#)

[Afloat](#) | [Ashore](#) | [Aviation](#) | [Media](#) | [OSH](#) | [Services](#) | [Training](#) | [Popular](#)

### Resources

- [Executive Summary](#)
- [Safety Toolbox](#)
- [75% Mishap Reduction](#)
- [Presentations](#)
- [Traffic Safety Toolbox](#)
- [TRIPS](#)  
(Trvl Risk Planning Sys)
- [Success Stories](#)
- [Statistics](#)
- [Newsroom/Press Kit](#)
- [POD Notes, Slogans](#)

### Quick Links

- [Photo of the Week](#)
- [Friday Funnies](#)
- [Safety School](#)
- [Acquisition Safety](#)
- [Safety Surveys](#)
- [Culture Workshops](#)
- [FOIA](#)
- [Secure Site \(PKI\)](#)

### Staff

- [Biographies](#)
- [Directory](#)
- [Mission](#)
- [Contact us](#)
- [Make us your home page](#)

Last Updated:  
August 31, 2006

### Traffic Death Update



On August 27, a CWO2 from USS *Boxer* was riding his motorcycle with a group when he had to maneuver to avoid a truck that was stopped after a blind curve. He was struck and killed by another motorcycle. On August 21, an ASAA from USS *John C Stennis* suffered fatal injuries in a single-vehicle mishap near Seattle, Wash. He was pronounced dead at 0200 the following day.

[PMV Stats](#) | [PMV Narratives](#)

Navy and Marine Corps PMV Deaths FY06 to date : **125**

### In the Spotlight

[What's New](#) | [More Articles](#)

- [Improved Version of Traffic Risk Management Tool Now On Line and Video](#)
- [SECNAV Announces Winners of the 2006 Safety Excellence Awards](#)
- [CNO Signs MFOQA Memo, Outlines Plan for Deployment](#)
- [For Sale on eBay: A 25-Pound American Electric Practice Bomb \(Totally Inert!\)](#)
- [NHTSA Offers Labor Day Traffic-Safety Planner](#)
- [New York Ad Agency Does Motorcycle PSA](#)
- [Yard Work and the Slow Learner \(Me\)](#)

### Initiatives and Tools





# USN MISHAP FREE SQUADRONS

<b>VF-32</b>	<b>VS-22</b>	<b>HC-2</b>	<b>VP-10</b>
<b>VFA-11</b>	<b>VS-33</b>	<b>HS-11</b>	<b>VP-47</b>
<b>VFA-115</b>	<b>VS-35</b>	<b>HS-5</b>	<b>VP-65</b>
<b>VFA-143</b>	<b>VAQ-130</b>	<b>HS-6</b>	<b>VP-69</b>
<b>VFA-147</b>	<b>VAQ-136</b>	<b>HS-8</b>	<b>VQ-4</b>
<b>VFA-15</b>	<b>VAQ-141</b>	<b>HS-75</b>	<b>VR-46</b>
<b>VFA-192</b>	<b>VAQ-142</b>	<b>HSC-24</b>	<b>VR-48</b>
<b>VFA-201</b>	<b>VAQ-209</b>	<b>HSC-25</b>	<b>VR-52</b>
<b>VFA-203</b>	<b>VAW-112</b>	<b>HSC-26</b>	<b>VR-54</b>
<b>VFA-211</b>	<b>VAW-115</b>	<b>HSC-28</b>	<b>VR-55</b>
<b>VFA-27</b>	<b>VAW-117</b>	<b>HSL-37</b>	<b>VR-56</b>
<b>VFA-37</b>	<b>VAW-77</b>	<b>HSL-40</b>	<b>VR-57</b>
<b>VFC-12</b>	<b>VAW-78</b>	<b>HSL-43</b>	<b>VR-58</b>
<b>VFC-13</b>	<b>VT-6</b>	<b>HSL-45</b>	<b>VR-59</b>
<b>VC-8</b>	<b>VT-86</b>	<b>HSL-48</b>	<b>VR-62</b>
		<b>HSL-51</b>	





# *Questions?*



# Tailhook Mishaps (FY06)

- **AV-8B** settled into water on carrier controlled approach. Pilot ejected.
- **AV-8B** suffered damage to aircraft and damaged equipment on ground during landing.
- **F/A-18C** crashed at sea during air to air training flight.
- **AV-8B** aircraft crashed into water. Pilot ejected.
- **2 F/A-18Cs** crashed during training flight. 1 pilot fatality.
- **EA-6B** ran off runway collapsing main landing gear.
- **TH-57B** crashed near OLF. 1 fatality, 2 injuries.
- **F/A-18A** suffered bleed air leak damaging portion of aircraft keel.
- **F/A-18E** aborted takeoff due to stbd engine fire. Pilot egressed, no injuries.
- **EA-6B** crashed during low level training flight.
- **F/A-18D** crashed after pilot lost control of aircraft during multiple emergencies.
- **F/A-18C** ramp strike.
- **T-34C** crashed into a field. Two aircrew fatalities.
- **F/A-18C** crashed during night training mission. 1 fatality.
- **T-39N** crashed during training flight. 2 NFO, 1 Air Force, and 1 civilian contractor fatalities.



# Ongoing Efforts

## FLEETWIDE INITIATIVES

- Defense Safety Oversight Committee
- Navy and Marine Corps Safety Council
- Operational Risk Management
- Data Centric Technology - MFOQA
- Safety Strategic Plan
- Human Factors Analysis
- CNET 5 Vector Model
- Navy Knowledge Online
- Culture Workshops
- Command Safety Assessment
- Maintenance Climate Assessment Survey

## NAVAL SAFETY CENTER PROGRAMS

- Mishap Investigations
- Surveys
- Web-Enabled Safety System (WESS)
- 75% Mishap Reduction Media Kits
- Naval Safety Campaign Plan
- ASCAS
- ORM Assessment (ORMAS)
- Media Campaign: Video/Print/Broadcast
- Critical Days of Summer Campaign
- Good Samaritan Program
- First Flag Notification
- NHTSA/Drive Smart VA/USAA/Click It or Ticket/Harley Davidson